This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) Cationic dyes of the general formula I

$$CAT^{+}Y^{-}$$
 (I),

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{v1}F_{4-v1-x1}(R^0)_{x1}]$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2: 1 to 20,

m2: 0, 1, 2 or 3 and

y2: 1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]^{T}$$
 (II-3)

with

p3 1 to 20,

m3 0, 1, 2 or 3 and

y3 1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$, q denotes 0 to 20 and $0 \le k \le 2q+1$, y4 denotes 1 or 2, where m4 = 0 if p4 = 0 and k = 0 if q = 0, with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F,

and

CAT⁺ is a cation selected from the group of the azine, xanthene, polymethine, styryl, azo, tetrazolium, pyrylium, benzopyrylium, thiopyrylium, benzothiopyrylium, thiazine, oxazine, triarylmethane, diarylmethane, acridine, quinoline, isoquinoline or quaternised azafluorenone dyes, where 3,3'-diethoxyethyl-2,2'-thiadicarbocyanine trifluoromethyltrifluoroborate is excluded.

- 2. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of an azine dye.
- 3. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a xanthene dye.
- 4. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a polymethine dye.
- 5. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a styryl dye.

- 6. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of an azo dye.
- 7. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a tetrazolium dye.
- 8. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a pyrylium dye.
- 9. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a benzopyrylium dye.
- 10. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a thiopyrylium dye.
- 11. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a benzothiopyrylium dye.
- 12. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a thiazine dye.
- 13. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of an oxazine dye.
- 14. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a triarylmethane dye.
- 15. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a diarylmethane dye.

- 16. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of an acridine dye.
- 17. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a quinoline dye.
- 18. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of an isoquinoline dye.
- 19. (Original) Dyes according to Claim 1, characterised in that CAT⁺ is a cation of a quaternary azafluorenone dye.
- 20. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a cyanine dye.
- 21. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a carbocyanine dye.
- 22. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of an azacarbocyanine dye.
- 23. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a diazacarbocyanine dye.
- 24. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a triazacarbocyanine dye.
- 25. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a hemicyanine dye.

- 26. (Original) Dyes according to Claim 4, characterised in that CAT⁺ is a cation of a diazahemicyanine dye.
- 27. (Currently Amended) Dyes according to <u>claim 1</u> one or more of Claims 1 to 26, characterised in that Y is a cyanoborate of the formula II-1

$$[B(CN)_{y1}F_{4-y1-x1}(R^0)_{x1}]$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl, with the condition that R^0 may be hydrogen if y1 is >2.

28. (Currently Amended) Dyes according to <u>claim 1</u> one or more of <u>Claims 1 to</u> 26, characterised in that Y is a fluoroalkylphosphate of the formula II-2

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4.

29. (Currently Amended) Dyes according to <u>claim 1</u> one or more of Claims 1 to 26, characterised in that Y is a fluoroalkylborate of the formula II-3

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where 3,3'-diethoxyethyl-2,2'-thiadicarbocyanine trifluoromethyltrifluoroborate is excluded.

30. (Currently Amended) Dyes according to <u>claim 1</u> one or more of <u>Claims 1 to</u> 26, characterised in that Y is an imide of the formula II-4

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4})N(C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{T}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

q denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.

31. (Currently Amended) Process for the preparation of cationic dyes according to claim 1 one of Claims 1 to 30, characterised in that

a compound of the general formula XXI

$$CAT^{+}A^{-}(XXI),$$

where CAT⁺ is a cation selected from the group of the azine, xanthene, polymethine, styryl, azo, tetrazolium, pyrylium, benzopyrylium, thiopyrylium, benzothiopyrylium, thiazine, oxazine, triarylmethane, diarylmethane, acridine, quinoline, isoquinoline or quaternised azafluorenone dyes

and A denotes Cl, Br, I, BF₄, PF₆, ClO₄, sulfate, tosylate, hydrosulfate, trifluoroacetate, acetate or oxalate,

is reacted with a compound of the general formula XXII

$$E^{+}Y^{-}(XXII)$$

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{y_1}F_{4-y_1-x_1}(R^0)_{x_1}]^{-}$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyhryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{-}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

q denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F, and

E⁺ is a cation of the alkali metals, alkaline earth metals or of a metal from group 11 and 12, ammonium, alkylammonium containing C₁-C₄-alkyl, phosphonium, alkylphosphonium containing C₁-C₄-alkyl or guanidinium.

32. (Original) Process for the preparation of carbocyanine dyes according to Claim 21, where the carbocyanine dye conforms to the formula XXIII

in which

n denotes 0, 1, 2, 3, 4 or 5,

R in each case, independently of one another, denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl and

R¹ in each case, independently of one another, denotes H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl or NHC(O)aryl and

the ring system, represented by

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denotes a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, which may furthermore contain 1, 2 or 3 N and/or 1 or 2 S or O atoms and in which the heterocyclic radical may be mono- or polysubstituted by Z,

Z denotes hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂

and

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{y_1}F_{4-y_1-x_1}(R^0)_{x_1}]^*$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4})N(C_{q}F_{2q+1-k}H_{k}XO_{y4})]$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

q denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F,

characterised in that use is made of a compound of the formula XXIV

where the ring system, R, R¹ and Y² have one of the meanings indicated in the case of formula XXIII and

n denotes 0, 1, 2, 3 or 4 and

G denotes hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R)₂, CONHaryl, C(O)aryl or CONHalkyl.

33. (Original) Compounds of the formula XXIV

where

n denotes 0, 1, 2, 3 or 4,

G denotes hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R), CONHaryl, C(O)aryl or CONHalkyl,

R denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl,

R¹ in each case, independently of one another, denotes H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl or NHC(O)aryl and

the ring system, represented by

denotes a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle

having 5 to 13 ring members, which may furthermore contain 1, 2 or 3 N and/or 1 or 2 S or O atoms and in which the heterocyclic radical may be mono- or polysubstituted by Z,

Z denotes hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂

and

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{y1}F_{4-y1-x1}(R^0)_{x1}]$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with -

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{T}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$, q denotes 0 to 20 and $0 \le k \le 2q+1$, y4 denotes 1 or 2, where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.

34. (Original) Process for the preparation of the compounds of the formula XXIV according to Claim 33,

characterised in that

a compound of the formula XXV

$$+ N = C \setminus \begin{pmatrix} R^1 & R^1 \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | & | \\ | &$$

in which

A denotes Cl, Br, I, BF₄, PF₆, ClO₄, sulfate, tosylate, hydrosulfate, triflate, trifluoroacetate, acetate or oxalate,

the ring system, represented by

denotes a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, which may furthermore contain 1, 2 or 3 N and/or 1 or 2 S or O atoms and in which the heterocyclic radical may be mono- or polysubstituted by Z,

Z denotes hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂,

n denotes 0, 1, 2, 3 or 4,

R denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl,

R¹ in each case, independently of one another, denotes H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl or NHC(O)aryl and

G denotes hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R), CONHaryl, C(O)aryl or CONHalkyl,

is reacted with a compound of the formula XXVI

$$E^+$$
 Y XXVI,

in which

E⁺ is a cation of the alkali metals, alkaline earth metals or of a metal from group 11 and 12, ammonium, alkylammonium containing C₁-C₄-alkyl, phosphonium, alkylphosphonium containing C₁-C₄-alkyl or guanidinium and where Y⁻ is an anion selected from the group CAB⁻, FAP⁻, FAB⁻ or Im⁻, where CAB⁻ conforms to the general formula (II-1)

$$[B(CN)_{y1}F_{4-y1-x1}(R^0)_{x1}]^-$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkylor alkylaryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2: 1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{T}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

q denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

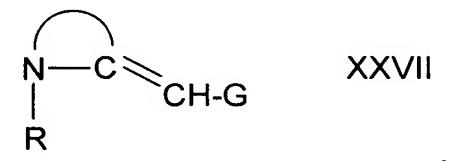
where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.

35. (Original) Process for the preparation of compounds of the formula XXIV according to Claim 33, with the restriction that n in formula XXIV denotes 0, characterised in that

a compound of the formula XXVII



in which

G denotes hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R), CONHaryl, C(O)aryl or CONHalkyl and

R denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl

and

the ring system, represented by

denotes a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, which may furthermore contain 1, 2 or 3 N and/or 1 or 2 S or O atoms and in which the heterocyclic radical may be mono- or polysubstituted by Z,

Z denotes hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂,

is reacted with HY,

where Y is an anion selected from the group FAP, FAB or Im, where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]^{T}$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]^{-}$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

1, 2, 3 or 4,

y3

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{T}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.

36. Process for the preparation of azo dyes according to Claim 6, (Original) where the azo dye conforms to the formula XXVIII

$$(R' - N = N - R'')^{+} Y - XXVIII$$

where

R' and R'' denote aryl or heteroaryl and one of the two aromatic nuclei is positively charged and

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{y1}F_{4-y1-x1}(R^0)_{x1}]^-$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

R⁰ denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]$$
 (II-2)

with

p2: 1 to 20,

m2: 0, 1, 2 or 3 and

y2: 1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]^{T}$$
 (II-3)

with

p3 1 to 20,

m3 0, 1, 2 or 3 and

y3 1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{T}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

p4 denotes 0 to 20 and $0 \le m4 \le 2p4+1$,

q denotes 0 to 20 and $0 \le k \le 2q+1$,

y4 denotes 1 or 2,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso

if X is sulfur, y4 denotes 2 and if X is carbon, y4 denotes 1 and p4 or $q \ge 1$, and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F,

characterised in that a compound of the formula XXIX

where R' and Y has one of the meaning indicated in the case of formula XXVIII, is reacted with the aromatic cyclic or heterocyclic compound R".

37. (Original) Compounds of the formula XXIX

 $R'-N_2^+$ Y- XXIX

in which

R' denotes aryl or heteroaryl and

where Y is an anion selected from the group CAB, FAP, FAB or Im, where CAB conforms to the general formula (II-1)

$$[B(CN)_{y1}F_{4-y1-x1}(R^0)_{x1}]$$
 (II-1)

and

y1 denotes 1, 2, 3 or 4,

x1 denotes 0, 1, 2 or 3 and

 R^0 denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyhryl, with the condition that R^0 may be hydrogen if y1 is>2,

where FAP conforms to the general formula (II-2)

$$[P(C_{p2}F_{2p2+1-m2}H_{m2})_{y2}F_{6-y2}]^{T}$$
 (II-2)

with

p2:

1 to 20,

m2:

0, 1, 2 or 3 and

y2:

1, 2, 3 or 4,

where FAB conforms to the general formula (II-3)

$$[B(C_{p3}F_{2p3+1-m3}H_{m3})_{y3}F_{4-y3}]$$
 (II-3)

with

p3

1 to 20,

m3

0, 1, 2 or 3 and

y3

1, 2, 3 or 4,

where Im conforms to the general formula (II-4)

$$[(C_{p4}F_{2p4+1-m4}H_{m4}XO_{y4}) N (C_{q}F_{2q+1-k}H_{k}XO_{y4})]^{*}$$
 (II-4)

and the variables

X denotes carbon or sulfur,

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p4 denotes 0 to 20 and 0 \le m4 \le 2p4+1, q denotes 0 to 20 and 0 \le k \le 2q+1, p4 denotes 1 or 2, where p4 = 0 if p4 = 0 and p4 = 0, with the proviso if p4 if p4 denotes 2 and if p4 if p4 denotes 2 and if p4 denotes 1 and p4 or p4 if p4 and where the carbon atoms of the alkyl chain of the formulae II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by p4.
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- 38. (Currently Amended) Use of the dyes according to <u>claim 1</u> one of <u>Claims 1 to</u> 30 for colouring plastics and plastic fibres, for the preparation of flexographic printing inks, as ball-point pen pastes, as stamp ink, for colouring leather and paper, in cosmetic formulations in the paints industry, in biochemistry, biology, medicine, analytics or electronics.
- 39. (Currently Amended) Use of the dyes according to <u>claim 1</u> one of <u>Claims 1 to</u> 30 in data acquisition systems, reprography, in ink microfilters, in photogalvanics, laser technology or the photo industry.
- 40. (Currently Amended) Use of the dyes according to <u>claim 1</u> one of <u>Claims 1 to</u> 30 for CD recorders, DVD recorders (DVD+R, DVD+RW), Bluray disc (BD-ROM, BD-R, BD-RE), computer to plate, laser filters, laser marking or photopolymerisation.